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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/041,698  | 01/08/2002  | Garry Richardson     | 899.035US1          | 5456             |
| 21186   | 7590        | 04/01/2005           | EXAMINER            |                  |
| SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.<br>P.O. BOX 2938<br>MINNEAPOLIS, MN 55402 |             |                      | GRIER, LAURA A      |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2644                |                  |

DATE MAILED: 04/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary****Application No.**

10/041,698

**Applicant(s)**

RICHARDSON ET AL.

**Examiner**

Laura A Grier

**Art Unit**

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on \_\_\_\_\_.  
2a) This action is **FINAL**.                    2b) This action is non-final.  
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-16 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.  
5) Claim(s) \_\_\_\_ is/are allowed.  
6) Claim(s) 1,8,10,11,14 and 15 is/are rejected.  
7) Claim(s) 2-7,9,12,13 and 16 is/are objected to.  
8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
10) The drawing(s) filed on 08 January 2002 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) Notice of References Cited (PTO-892)  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/13/04 & 9/15/04.

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) Notice of Informal Patent Application (PTO-152)  
6) Other: \_\_\_\_\_.  
Part of Paper No./Mail Date 20050330

**DETAILED ACTION**

***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 9/13/04 and 9/15/04 have been considered by the examiner.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 recites the limitation "the first control" in line 1. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 8, 11, and 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Smart et al., U. S. Patent No. 5892834.

Regarding claim 1, Smart et al., (herein, Smart) discloses audio level dynamic range compression. Smart's disclosure comprises an audio signal input into an audio processor – 4, which reads on an input to receive an input signal and output and analog signal; the audio processor includes a variable gain amplifier (VGA) – 6, which reads on a variable gain amplifier; and A/D converter – 10, which reads on an analog-to-digital converter; and with the microcontroller coupled to input from a compression means, the microcontroller receiving and outputting a digital signal via a digital bus to provide a gain control signal to the VGA indicates digital gain control and a compression recapture system (figure 1, col. 4, lines 13-37).

Regarding claim 8, Smart discloses everything claimed as applied above (see claim 1). Smart inherently discloses the A/D converter comprising a threshold as evident by the fact that A/D converter coupled with the microcontroller, which has a look up table to compare value levels, and the A/D converter outputs an averaged audio signal (col. 4, lines 26-35)

Regarding claim 11, Smart discloses everything claimed as applied above (see claim 1). Smart discloses the claimed limitations in figure 1 and col. 5, lines 18-63.

Regarding claim 14, Smart discloses audio level dynamic range compression. Smart's discloses in figure 1 and col. 4, lines 13-37 and col. 5, lines 18-63, which includes an audio signal input into an audio processor; a variable gain amplifier (VGA), an audio averaging circuit, and a microcontroller coupled to input from a compression means, the microcontroller receiving and outputting a digital signal, which indicates detecting when an input signal is above a threshold, reducing the gain of an amplifier, and restoring an output signal.

Regarding claim 15, Smart discloses everything claimed as applied above (see claim 14). Smart discloses the microcontroller coupled to input from a compression means, the

microcontroller receiving and outputting a digital signal via a digital bus to provide a gain control signal to the VGA indicates digital gain control.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smart.

Regarding claim 10, Smart discloses everything claimed as applied above (see claim 1).

However, Smart fails to disclose a filter. The examiner takes official notice that such filters were well known in the art. Thus, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Smart by implementing a filter (such a high pass filter) for the purpose of removing or attenuating unwanted low frequency components of the input signal.

***Allowable Subject Matter***

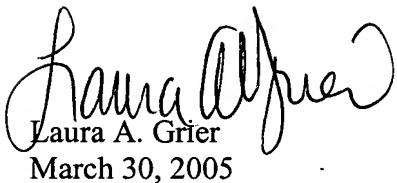
7. Claims 2-7, 9, 12-13 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura A Grier whose telephone number is (571) 272-7518. The examiner can normally be reached on Monday - Friday, 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh N Tran can be reached on (571) 272-7564. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Laura A. Grier  
March 30, 2005